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# Enhancing the sensitivity of the electro-optical far-field experiment for measuring CSR at KARA

*Thursday, 11 May 2023 16:30 (2 hours)*

At the KIT storage ring KARA (Karlsruhe Research Accelerator), a far-field electro-optical (EO) experimental setup to measure the temporal profile of the coherent synchrotron radiation (CSR) is implemented. Here, the EOSD (electro-optical spectral decoding) technique will be used to obtain single-shot measurements of the temporal CSR profile in the terahertz frequency domain. To keep the crucial high signal-to-noise ratio a setup based on balanced detection is under commission. Therefore, simulations are performed for an optimized beam path and the setup is characterized. In this contribution, the upgraded setup and first measurements are presented.

## Funding Agency

## Footnotes

## I have read and accept the Privacy Policy Statement

Yes

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